# Howard Hanson Dam Briefing

July 22, 2009

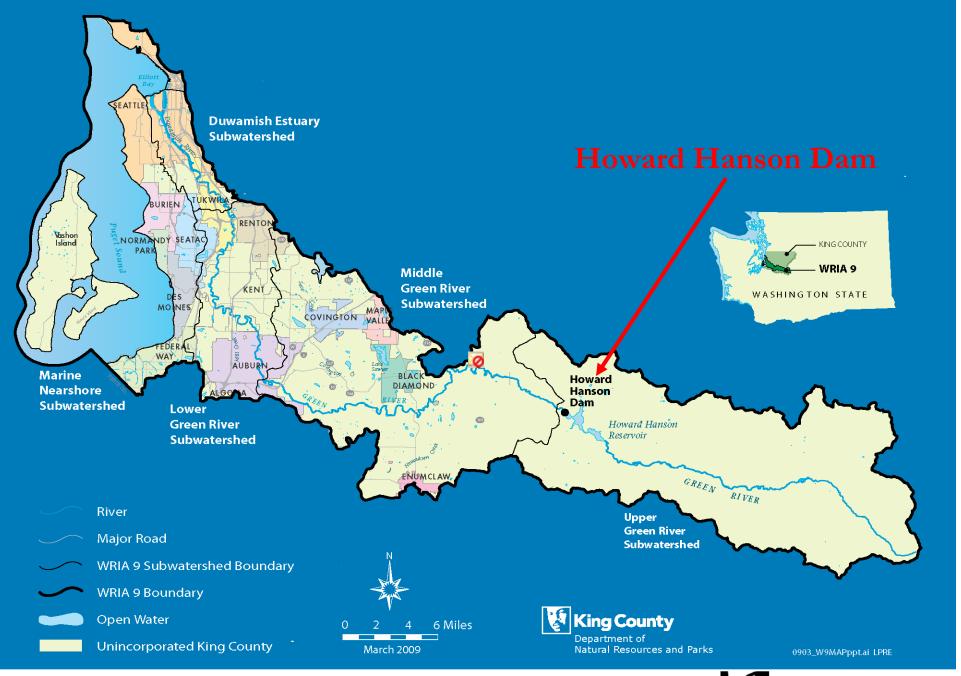
Pam Bissonnette, Assistant County Executive King County Executive's Office



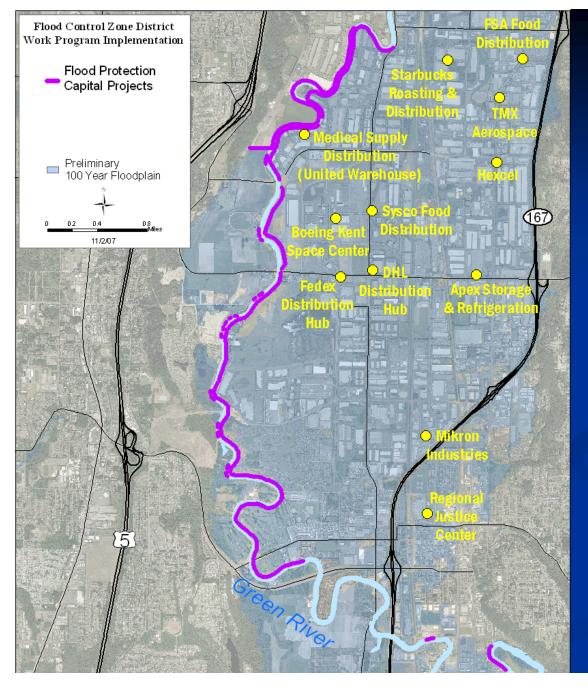
### Howard A. Hanson Dam

- Howard A. Hanson Dam is a U.S. Army Corps of Engineers flood control dam
- Operated and maintained exclusively by the U.S.
   Army Corps of Engineers since 1962
- Located near the headwaters of the Green River in King County
- Primary purposes are flood control in the winter, fish enhancement in the summer, and water supply









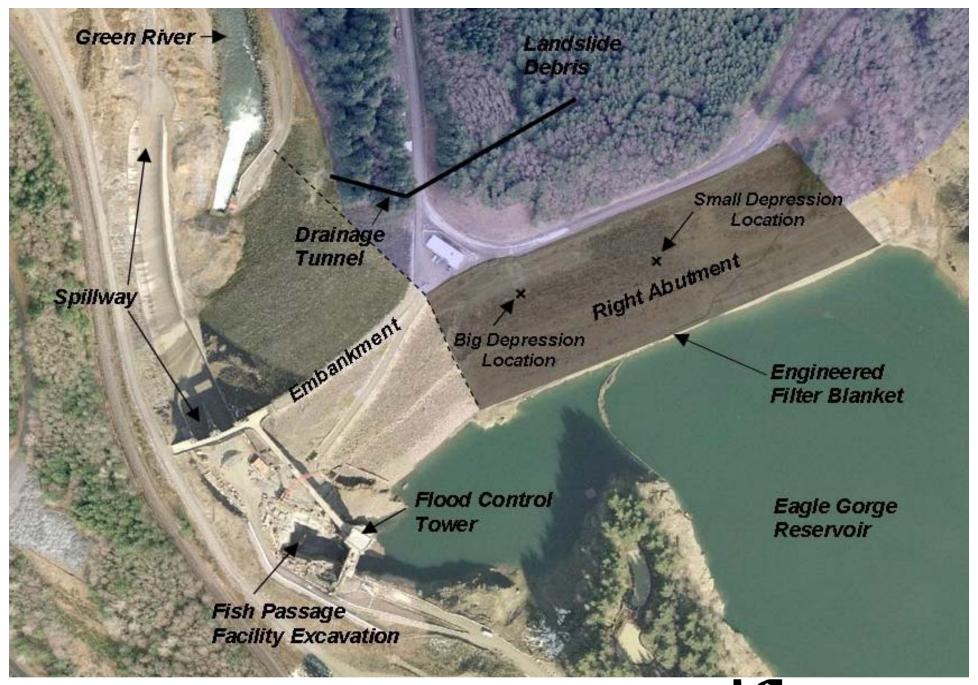
Howard Hanson Dam protects region's manufacturing and distribution centers and public facilities in the lower Green River floodplain and residential areas in the middle Green River floodplain



## January 2009 Flood Event

- Record water stored behind dam to 1189 feet 6
   feet higher than previous record
- Two depressions on the right abutment
- Turbid water observed from one of the drains in the right abutment drainage tunnel
- Concern that a flow path through the right abutment could potentially be developing that could ultimately lead to dam failure
- Dam failure is not considered an imminent threat at this time







# Current Investigation and Analysis by Army Corps of Engineers

- Installed monitoring wells on the right abutment of the dam
- Completed dye testing at period levels during spring refill
- Installation of drainage tunnel dewatering wells along the right abutment by flood season
- Construction of a grout curtain along the right abutment by winter flood season
- Increased risk and probability of flooding will depend on success of interim repairs
- Long term repairs will likely take several years

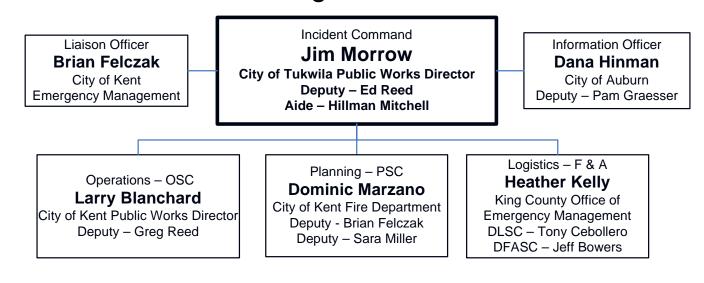


## Ongoing Planning Efforts

Incident Management Plan with Green River Valley Cities

### Howard Hanson Dam Planning Group Operation Action Plan (OAP)

**Org Chart** 

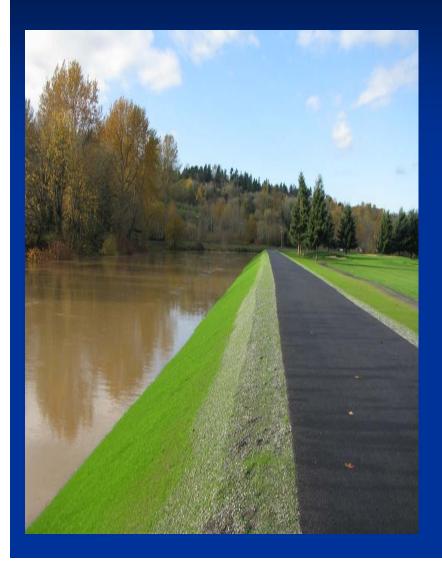


# King County Response to Howard Hanson Dam Operational Changes

- Collaborating with the Corps of Engineers to prepare dam operation and inundation scenarios
- Assessing immediate actions that can be taken to minimize flood risks
- Performing evaluation of levee conditions and overtopping locations
- Holding public meetings, increase outreach
- Working with the Corps of Engineers to complete critical levee repairs



### Critical Levee Repairs



### **Build on Completed Work**

- 600 Feet Briscoe #4 in 2007
- 9,300 linear feet at 6 sites in 2008

#### **Implement 2009 Construction**

- 2,200 linear feet at Horseshoe Bend, Kent
- Critical repairs at 3 other sites to protect critical public infrastructure and commercial and industrial land uses
- Pursuing Corps partnerships to address the low spots near Auburn

### **Preparing for 2010 Levee Setbacks**

- Acquire sufficient right of way to set back the levee during 2010
- 18,000 linear feet of construction at 14 sites
- Corps ERP partnership Upper Russell



# Potential Flooding Impacts





# King County Response to Howard Hanson Dam Operational Changes

- Open Flood Warning Center earlier in response to major storm forecasts and issue flood warning notifications sooner
- Increased Flood Patrols by King County, Corps of Engineers and City staff
- Automated callouts through MyStateUSA
- Free sand bags and sand will be available at several key locations in King County



# Public Outreach and Communications

- Coordinating communications with Green River Howard Hanson Dam Flood Planning PIO Team
  - Includes Cities and Corps
- Press releases, UAC newsletters, social media posts
- Letter to unincorporated residents in Green River Valley 2/9/09
- Postcard to unincorporated valley residents 3/16/09
- Public meeting in Auburn with 300 attendees 3/31/09
- Video streaming of public meeting and Council briefing

Cont...



### Selected Outreach and Communications Activities Summer/Fall 2009

- Mass mailing of letter and brochure planned for July
  - 115,000+ residents, businesses, property owners
- Proposed telephone survey of citizen awareness in July/August
- Regular press releases, announcements, media events, social media posts
- Staffing and materials for regional summer outreach opportunities
  - Festivals, farmers markets, libraries, Auburn Supermall
- Taping of informational KCTV show with subject matter experts and video Public Service Announcements

Cont...



### Selected Outreach and Communications Activities Summer/Fall 2009

- Advertising proposals buses, theaters, billboards, etc.
- Speakers bureau
- Regional chamber meeting for valley businesses (tentative for late summer)
- Public meeting tentative for September 9
- Outreach for October is Flood Awareness month
- Outreach for regional Take Winter By Storm partnership



# Lessons Learned from Flooding of the Red River, North Dakota

- Think big, and keep policy separate from operations
- Early Pre-Declaration of Emergency helpful
- Evacuation recommendation/decision critical
- Regular communications from calm elected officials calmed the public/increased credibility of response
- Sheltering challenges for vulnerable populations/Public Health leadership/Use of Health Officer Authority
- Volunteers numerous during response/less so during cleanup/need for coordination/met match requirement
- Importance of National Guard, FEMA & other state and federal agencies early involvement/private sector



# Current Status of King County Flood Response Planning

- Working with Green River cities and Corps of Engineers
- Identifying flood fighting resources
- Pre-determination of flooded populations, businesses, essential facilities, vulnerable populations
- Pre-determination of shelters & trained staff
- Pre-determination of evacuation routes & transportation corridors



# King County Activities Underway from Now Until Flood Season

- Complete plans for sheltering, evacuation, transport and flood fighting
- Fully assessing emergency operations of critical facilities
- Test readiness through table-top and training exercises
- Request pre-declaration of emergency
- Extensive public information & outreach
- Continue monitoring Howard Hansen status with the Corps of Engineers
- Flood Warning Center on alert



## Preparedness – What Can Citizens Do?

- Sign up for automated flood notifications through MyStateUSA
- Buy a Weather Radio
- Purchase flood insurance (30 day wait period)
- Determine evacuation route
- Create a disaster plan for you and your family



## Preparedness – Elected Officials

- Letter sent to Washington State Governor requesting advanced planning measures
- Ensure that clear direction is provided to citizens and King County staff to follow a coordinated plan
- Development consistent messages
- Fully communicate issue with all stakeholders that will be affected by flooding

